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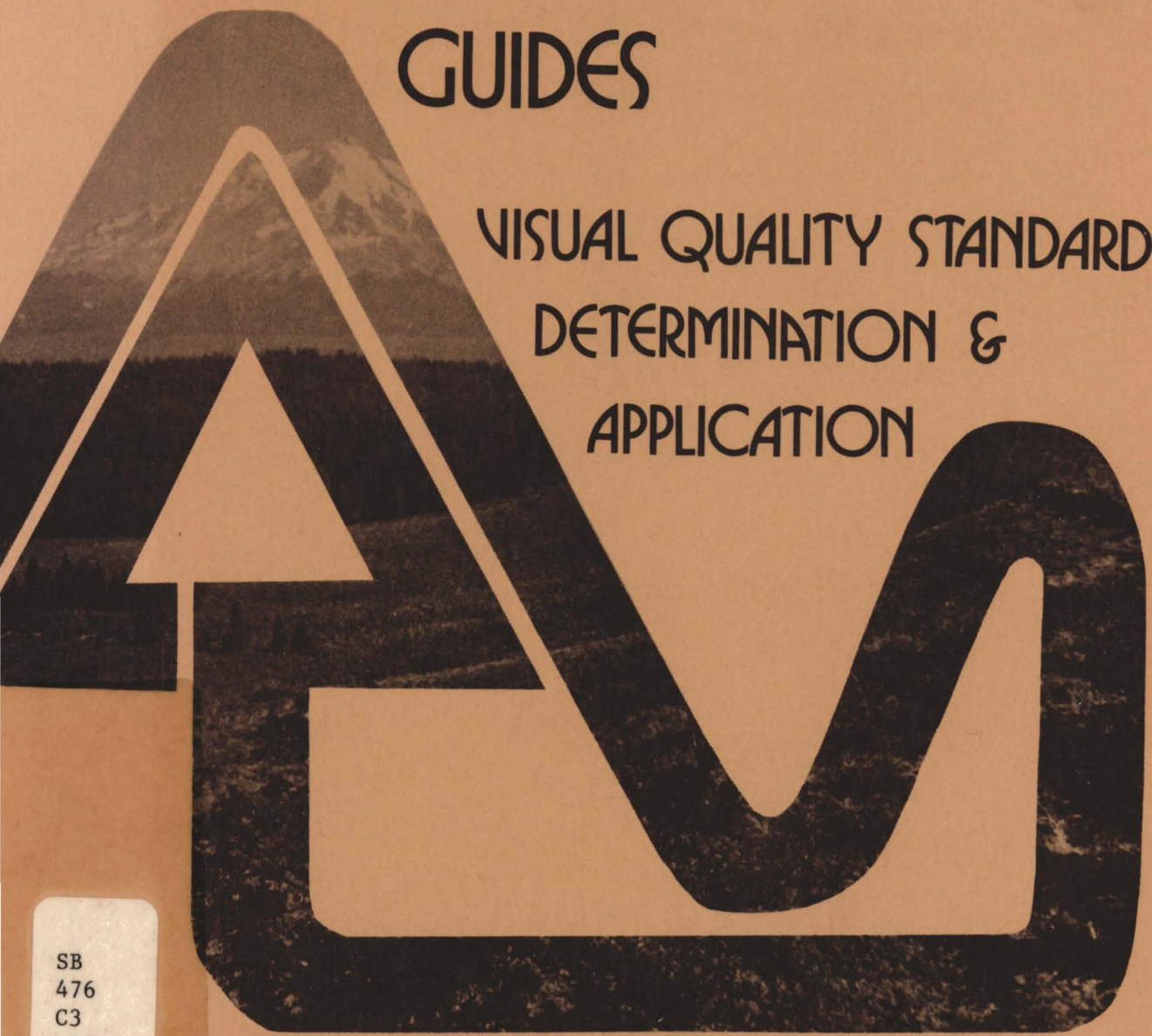
VISUAL RESOURCE MANAGEMENT GUIDES



VISUAL QUALITY STANDARD DETERMINATION & APPLICATION

SB
476
C3
1973

California Region · Forest Service · U.S. Department of Agriculture · March 1973

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ACKNOWLEDGEMENTS

This guide borrows extensively from "The Visual Management System" handbook produced by landscape architects of Region Six of the U. S. Forest Service, and a modified approach to that system entitled "Scenery Management Guides--Six Rivers National Forest" produced by landscape architect Dennis Holcomb.

It was further influenced by discussions with the Region Six Regional Office landscape architects, Dennis Holcomb, and comments from Professor R. Burton Litton, Department Head of Landscape Architecture at the University of California at Berkeley.

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1.0 Introduction

2.0 Visual Quality Standards

3.0 Visual Sensitivity

4.0 Variety Classes

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6.0 Visual Resource Capability

7.0 Coordination with Other Resources

SECTION 1

INTRODUCTION

1.1 Purpose

1.2 Scope

1.3 Application

1.4 Basic Premises

1.1 Purpose of Guides:

1.11 Establish specific standards for identification and classification of scenic quality and the visual sensitivity of forest landscapes.

1.12 Identifies areas of similar visual characteristics and importance which often transcend existing multiple use zones.

1.13 Establish specific management objectives and minimum quality standards for visual resources.

1.14 Provides interdisciplinary opportunities to explore viable alternatives to meet those visual quality standards.

1.15 Provide a subsystem for managing the visual resource under the established as well as the proposed multiple use methods of planning and operation.

1.2 Scope:

These guides apply Region-wide

The visual quality standards contained in this guide incorporate the extreme variability in scenic quality, visual sensitivity, and the ability of various forest landscapes to undergo modification.

The visual quality standards set only visual goals. Other quality standards for air, water, fire control, etc., may often reinforce the visual quality standards, but there may be times when they are in conflict. Economics, especially the short term type, may often be a constraint to these visual quality standards. While not included in the system, these factors can and will occasionally modify the end product.

1.3 Application:

These guides apply to all forest management activities including, but not limited to, timber harvesting, road construction, type conversion projects, fuel breaks, utility corridors, structures, etc.

1.4 Basic Premises

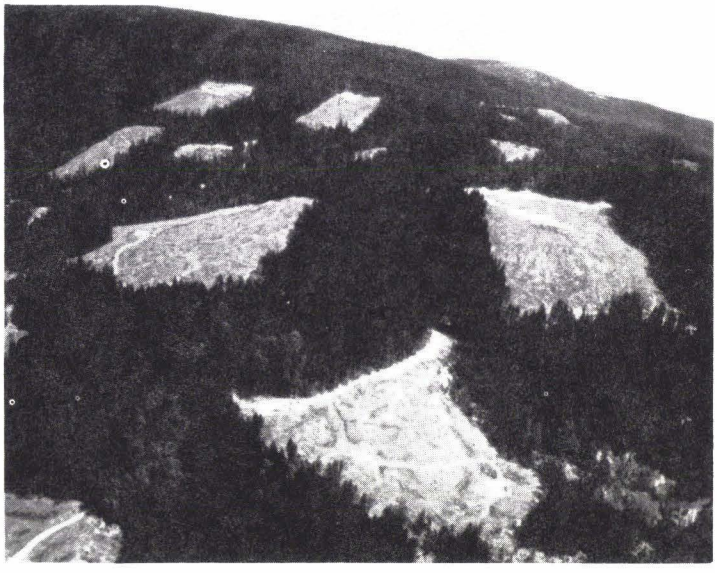
1.41 Expected Images Exist

The majority of the recreation oriented people who visit the National Forests have an image of what they expect to see. Such an image or mental picture is generated by available information concerning a particular area and the person's experience with that or similar areas. The image produced represents the knowledgeability, expectations, romanticism and emotionalism associated with features within the area. Obviously, several images may exist simultaneously, even within a single individual, and yet a particular geographic region tends to have an identifiable image.

Although studies of peoples' images of Forest areas result in varied responses from one geographic region to another, one factor generally remains fairly constant. People expect to see a natural appearing landscape character predominate within the National Forests.

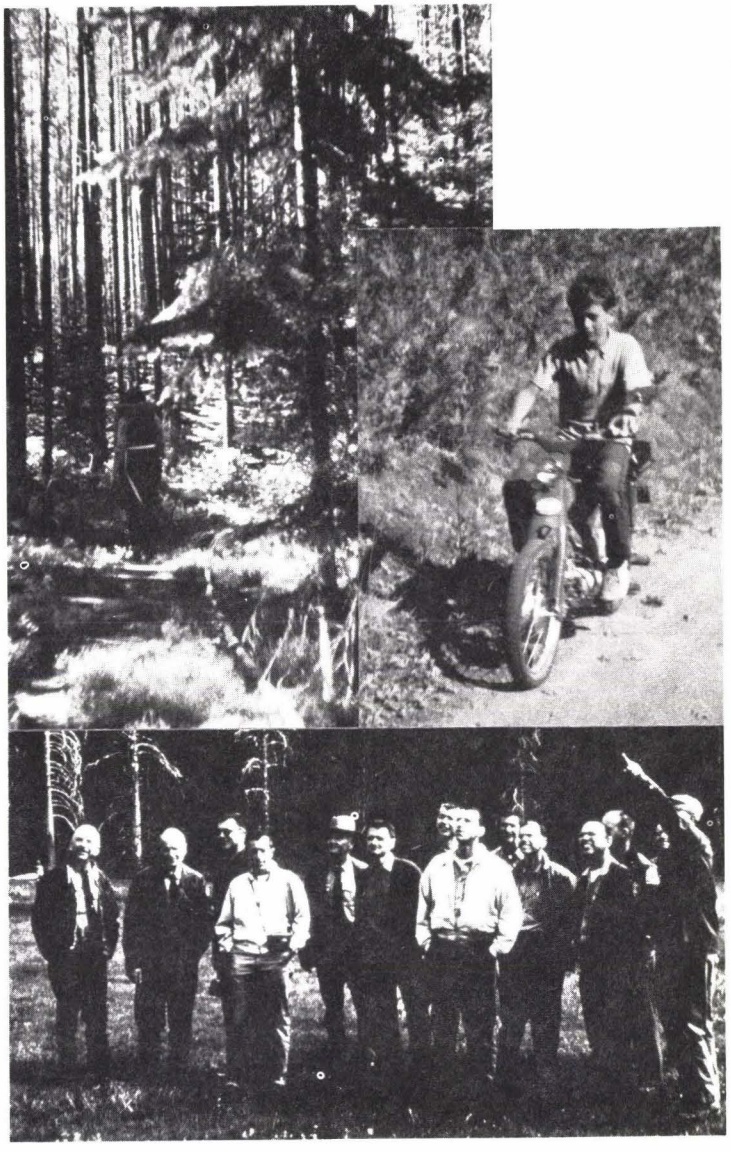
1.42 All Lands are Viewed

Because all lands can be seen from aircraft or high vista points, a minimum acceptable visual quality standard should be set for all Forest lands.



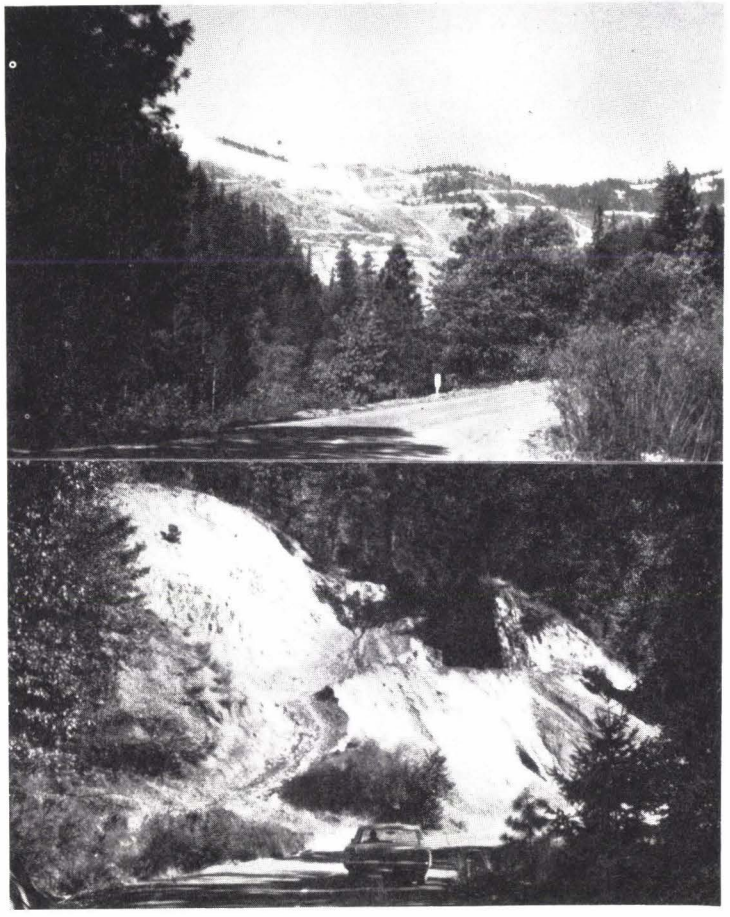
1.43 Aesthetic Concern Varies and Types of Viewers are Critical

The visual impacts of management activities increase as viewer concern increases. Those people who are the most concerned about aesthetics are those who are in an area because of, or have a major interest in, the scenic qualities, e.g. recreation travelers. Those who live in or travel through the area for purely economic reasons will often have less concern for visual quality, but their concern seems to be increasing along with increasing affluence.



1.44 Number of Viewers is Critical

The visual impacts of a management activity become more important as the number of viewers increases.



1.45 View Duration is Critical

The visual impacts of management activities are more apparent as the duration of view increases beyond a quick glance.

1.46 Focus of Viewer Attention is Critical

The dominance and arrangements of elements will focalize viewer's attention and subject certain areas to more critical scrutiny. Major peaks, water forms, rock outcrops, meadows, edges, enframed views, axial patterns and convergent patterns are typical areas of focalization. The visual impact of management activities increases as the focus of viewer attention increases in such managed areas.

1.47 Viewing Angle is Critical

Visual impact of management activities increases as the viewer's line of sight tends to become perpendicular to the slope upon which the management activity is to take place.

1.48 Viewing Distance is Critical

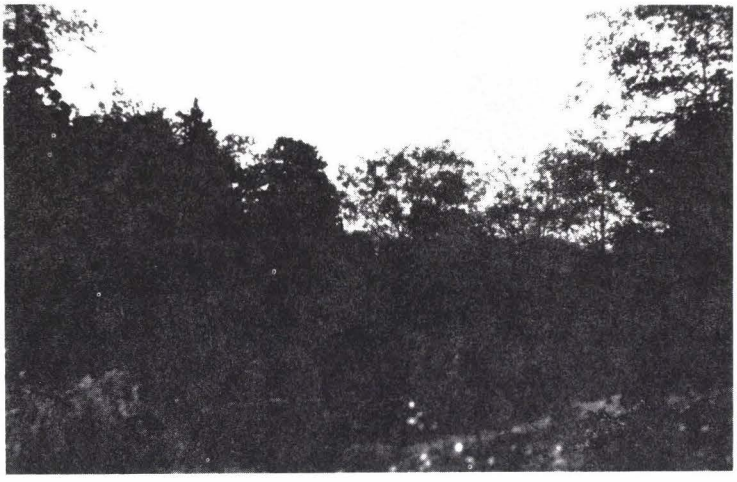
Visibility and clarity of detail is often a function of viewing distance. The visual impact of management activities usually increases as viewing distance decreases.

1.49 The Capacity of each Landscape to absorb modifications without losing its visual character is critical

Each landscape unit has its individual capacity to accept modifications without losing its inherent visual character. This may be expressed in the screening ability of the vegetation and landforms, the variety of vegetative cover and rock outcrops and water, and its ability to recover vegetatively after disturbances.

1.410 Climatic and Lighting Conditions are Critical

The viewing situation is very much influenced by the weather (sun, rain, fog, haze, etc.) and the type of lighting at any particular time.



1.411 Diverse Character is Important

All landscapes have a definable character, and those with the greatest variety or diversity have the greatest potential for high scenic value.

1.412 Management is Necessary

Landscapes are dynamic and even those areas of high aesthetic value may require some management activity to retain the valued character.

1.413 Retention of Character is Desirable

Landscapes with distinctive variety in visual characteristics should be retained and perpetuated.

1.414 Modification of Character may be Desired

Landscapes with little or no variety may be enhanced by modification.

1.415 The Visual Weight and Character of Management Activities is Critical

The visual impact of management activities increases as the amount of landscape modification increases. The visual impact of management activities also generally increases as the visual characteristics in the management activity deviate from those characteristics in the natural landscape.

SECTION 2

VISUAL QUALITY STANDARDS

2.1 Quality Standards

2.2 Preservation

2.3 Retention

2.4 Partial Retention

2.5 Modification

2.6 Maximum Modification

2.7 Unacceptable Modification

2.8 Rehabilitation

2.9 Enhancement

2.1 Quality Standards

Quality standards are visual management goals based primarily on the premise that diverse natural character is important. This diversity is important for the well-being of the landscape and of man. As more diversity exists, the biological landscape system becomes more stable and less subject to either natural or man-made disasters. The human system tends to respond to the increased diversity in terms of increased mental stability.

Each quality standard describes a different degree of modification of the natural landscape. The quality standards are keyed to the Variety Classes and Sensitivity Levels. Except for preservation, the emphasis is on modification, in varying degrees, based upon the importance of aesthetics. The quality standards are:

Preservation of Character (P)
Retention of Character (R)
Partial Retention of Character (PR)
Modification of Character (M)
Maximum Modification of Character (MM)

Two additional short term management goals may be required with landscapes containing undesirable visual impacts, and monotonous landscapes having a potential for greater natural appearing variety. The short term management goals are:

Rehabilitation
Enhancement

Once the short term goal is attained, one of five quality standards is then applied.

2.81 Visual Unity Classification

In order to determine where rehabilitation is required as an interim step, landscapes can be classified by their degrees of unity or discord with the natural landscape character. Ordinarily, an area that meets a lower visual quality standard than is now determined to be necessary should be first brought up to the acceptable standard.

Scenic quality is, among other things, affected by the degree of visual unity which exists between management activities and the natural features in the landscape. Visual unity classes provide an overall indication of the level of visual disturbances apparent in the landscape which were carried out in the absence of Visual Quality standards in the past. Three different levels of visual unity can be discerned in landscapes containing management activities. They are:

Unified Landscapes
Partially Unified Landscapes
Discordant Landscapes

2.811 Unified Landscapes contain management activities which appear to borrow their characteristic forms, lines, colors, textures, scale, etc., from those naturally established in the characteristic landscape. Visual linkages are strong. Modifications are completely blended and are usually not apparent to the casual observer. The landscape appears natural. Visual appeal is maintained or enhanced.

2.812 Partially Unified Landscapes contain management activities which do not quite borrow all of their characteristics from those on the natural landscape. Modifications are nearly always apparent but not obtrusive. Scenic quality is neither enhanced or seriously reduced.

2.813 Discordant Landscapes contain management activities which do not appear to come from or borrow the characteristic forms, lines, colors, textures, scale, etc., from those naturally established in the characteristic landscape. Discordant landscapes lack strong visual linkages. Management activities compete with and destroy natural landscape unity. Modifications appear poorly blended, unnatural and obtrusive. Discordant management activities seriously reduce the scenic attractiveness of natural landscapes. Rehabilitation of discordant landscapes is the desirable first step.

ENHANCEMENT

BEFORE

AFTER

2.9 Enhancement

Management of low quality landscapes to enhance visual quality is desirable. Enhancement is a short term management alternative aimed at increasing positive visual variety where little such variety now exists.

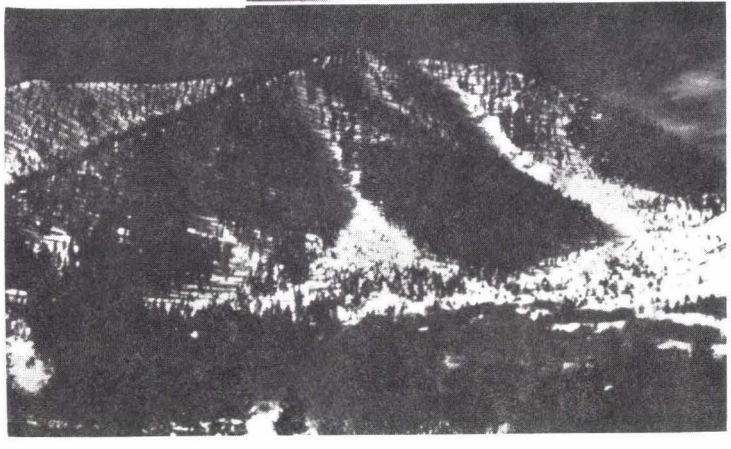
Enhancement may be achieved through addition, subtraction, or modification of vegetation, water, rock, earthforms, structures, etc., to create additional variety of forms, edges, colors, textures, patterns, spaces, etc. Examples of such might include:

Addition of species to plant community to give unique form, color or texture to an area.

Manipulation of vegetation to open up vistas, screen out undesirable views, etc.

Addition of structures which enhance the natural landscape.

PRESERVATION



2.2 Preservation

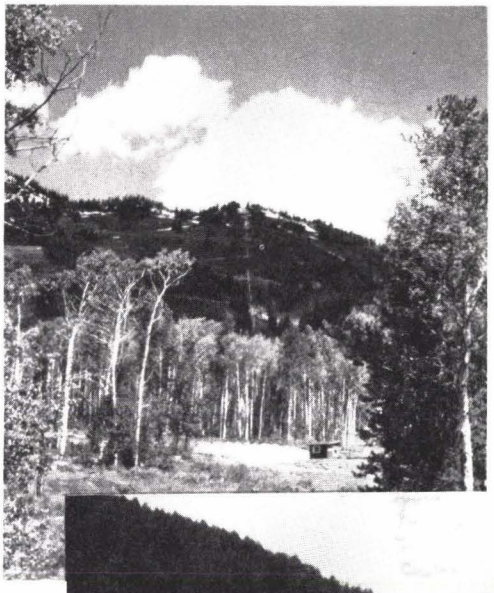
This standard provides for ecological changes only. Management activities which modify the natural character of the landscape are prohibited.

This standard applies to:

Wilderness areas, primitive areas, and other special classified areas.

Limited (often small) unique management units which do not justify special classification or areas awaiting classification.

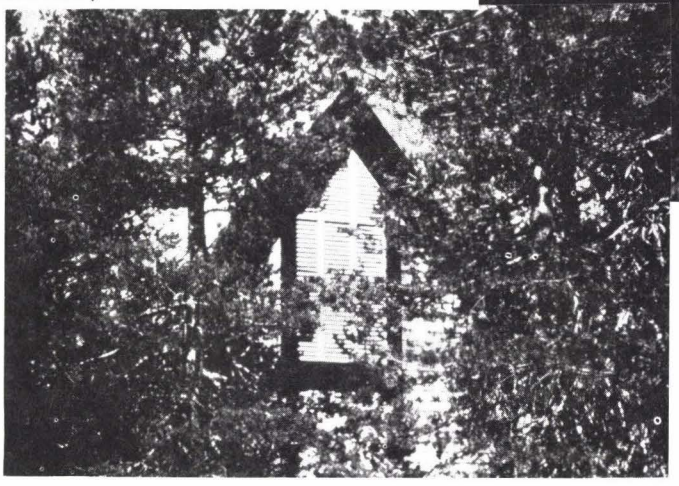
RETENTION



2.3 Retention

This standard requires management activities to be designed and located to blend into the natural landscape and not be visually apparent to the casual forest visitor. Dominant qualities of visual elements and principles not found in the characteristic landscape should not be evident in the management activity.

A management activity may repeat the visual elements and principles common in the characteristic landscape only if this repetition does not evidently change the essential quality of the existing dominance factors (e.g. pattern, intensity, amount).

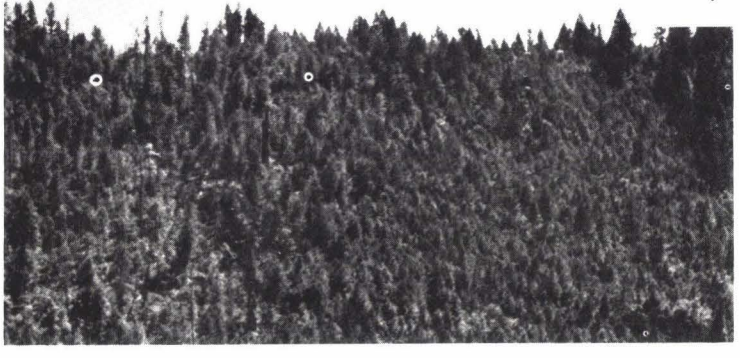


2.31 Vegetative Clearings: very small scales, irregularly shaped clearings with scalloped and feathered edges will nearly always be required. Moderately large clearings containing straight lines and geometric forms or patterns are generally not acceptable.

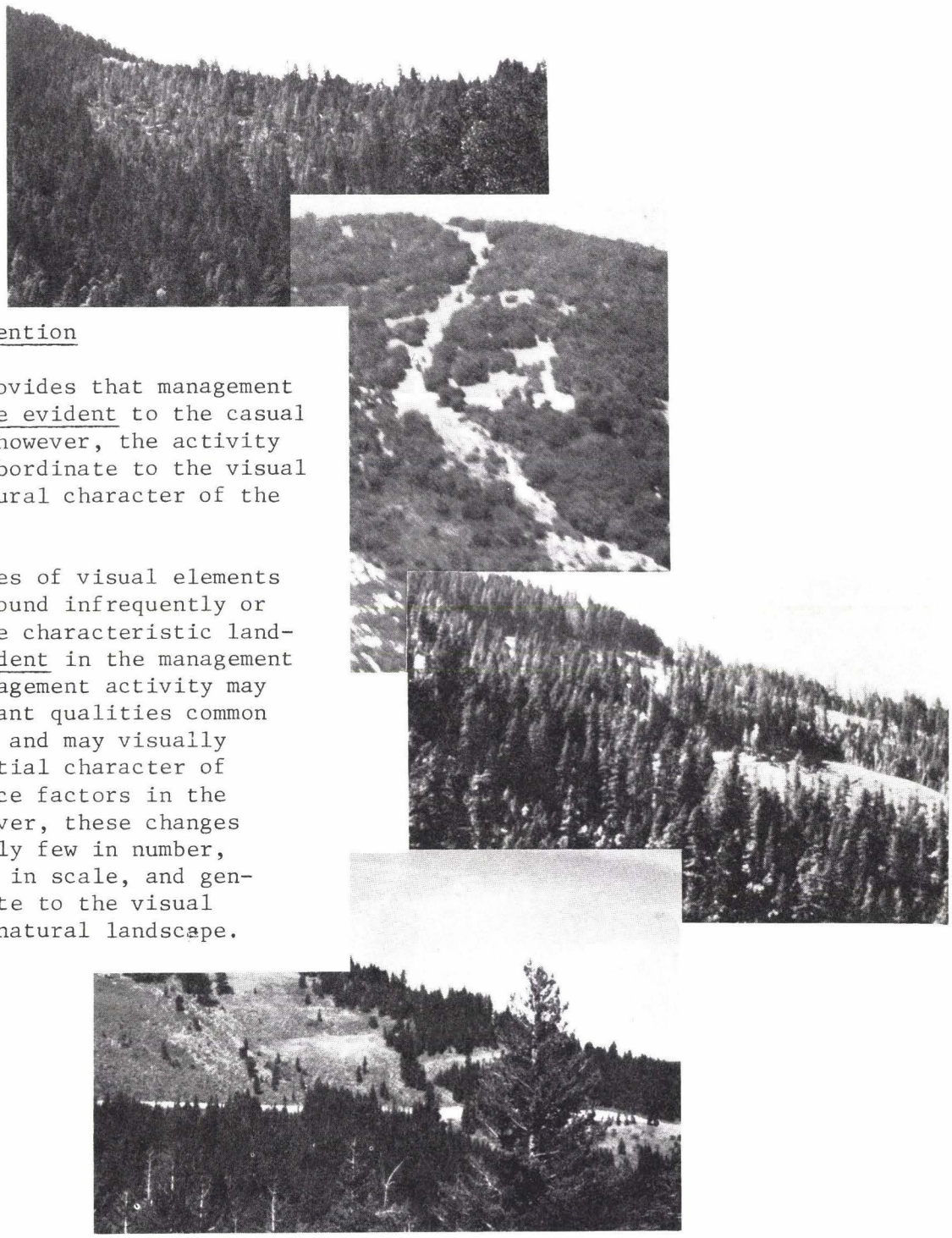
Immediate seeding of all vegetative clearings and cut/fill slopes combined with hand planting or large stock in foreground areas may be required.

2.32 Duration of Visible Impact

Immediate reduction in line, form, color, and texture contrast is essential either during the operation or immediately after depending upon predicted public reaction.



PARTIAL RETENTION



2.4 Partial Retention

This standard provides that management activities may be evident to the casual forest visitor; however, the activity should remain subordinate to the visual strength and natural character of the landscape.

Dominant qualities of visual elements and principles found infrequently or not at all in the characteristic landscape may be evident in the management activity. A management activity may repeat the dominant qualities common in the landscape and may visually change the essential character of existing dominance factors in the landscape. However, these changes must be relatively few in number, relatively small in scale, and generally subordinate to the visual strength of the natural landscape.

2.41 Vegetative clearings which are visually apparent should generally be located in subordinate or nonsensitive areas, and should avoid critically sensitive areas such as prominent features (e.g. peaks, skyline ridges, water bodies, etc.), long duration view areas, enframed views, and other critical focus areas.

The number of clearings visible at any one time should be limited to one or two. The overall size or amount of clearing should generally be small in relation to the seen area so as not to be dominant in the natural landscape.

Establishment of strong visual linkages between the management activity and the characteristic landscape is needed to reduce visible impacts. The activity must borrow from naturally established visual dominance qualities so completely and at such a scale that its visual characteristics are those of natural occurrences within the character type.

As an example: lines, shapes and patterns of vegetative clearings should generally be irregular, free form, scalloped, feathered, and related to natural vegetation patterns and landforms, and roads should be located and designed so as not to become dominant features in the landscape.

2.42 Duration of Visible Impacts

Reduction in form, line, color, and texture should begin as soon as possible or at a minimum within the first year. Hand planting may be required when natural regeneration is not likely within the first year.

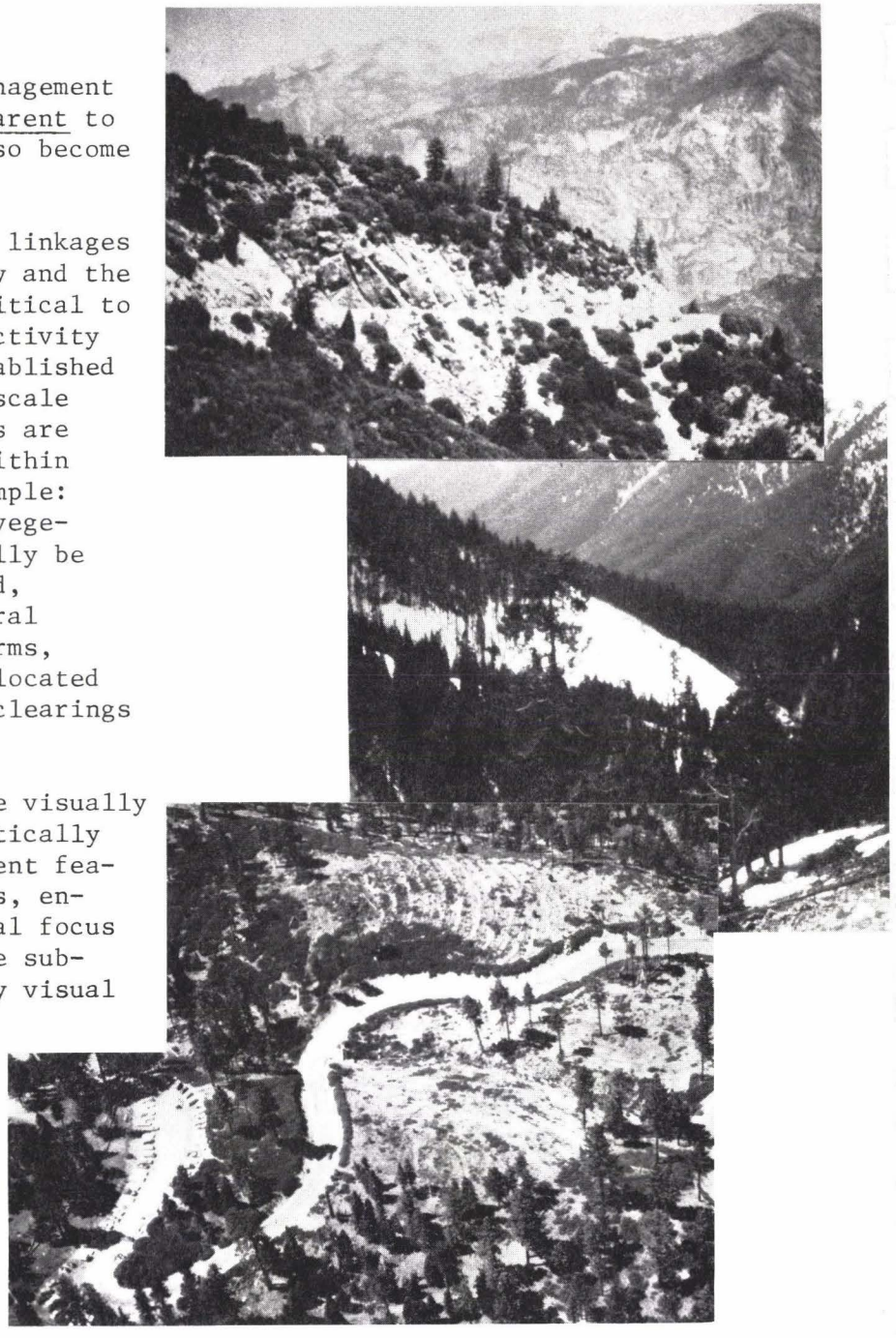
MODIFICATION

2.5 Modification

This standard provides that management activities may be visually apparent to the casual observer and may also become dominant in the landscape.

Establishment of strong visual linkages between the management activity and the characteristic landscape is critical to reduce visible impacts. The activity must borrow from naturally established dominance qualities at such a scale that its visual characteristics are those of natural occurrences within the character type. As an example: lines, shapes and patterns of vegetative clearings should generally be irregular, free form, scalloped, feathered, and related to natural vegetation patterns and landforms, and roads should generally be located along the edges of vegetative clearings to reduce visible scarring.

Management activities which are visually apparent may be located in critically sensitive areas such as prominent features, long view duration areas, enframed views, and other critical focus areas if such modifications are subjected to sensitive analysis by visual design arts disciplines.



2.51 Vegetative Clearings

The amount, number, and size of clearings, roads, structures, etc., should be controlled so as not to overwhelm or completely subordinate the natural character of the landscape. This is often indicated by vegetative clearings constituting less than 25% of the seen area; however, the proper amount of modification will often vary upward or downward from this figure depending upon the number of natural vegetative openings present in the characteristic landscape. Landscapes containing numerous natural openings have a much larger capacity to absorb modifications of vegetative clearings. The amount of modification appropriate under this standard must be set on a case by case basis.

2.52 Duration of Visible Impact

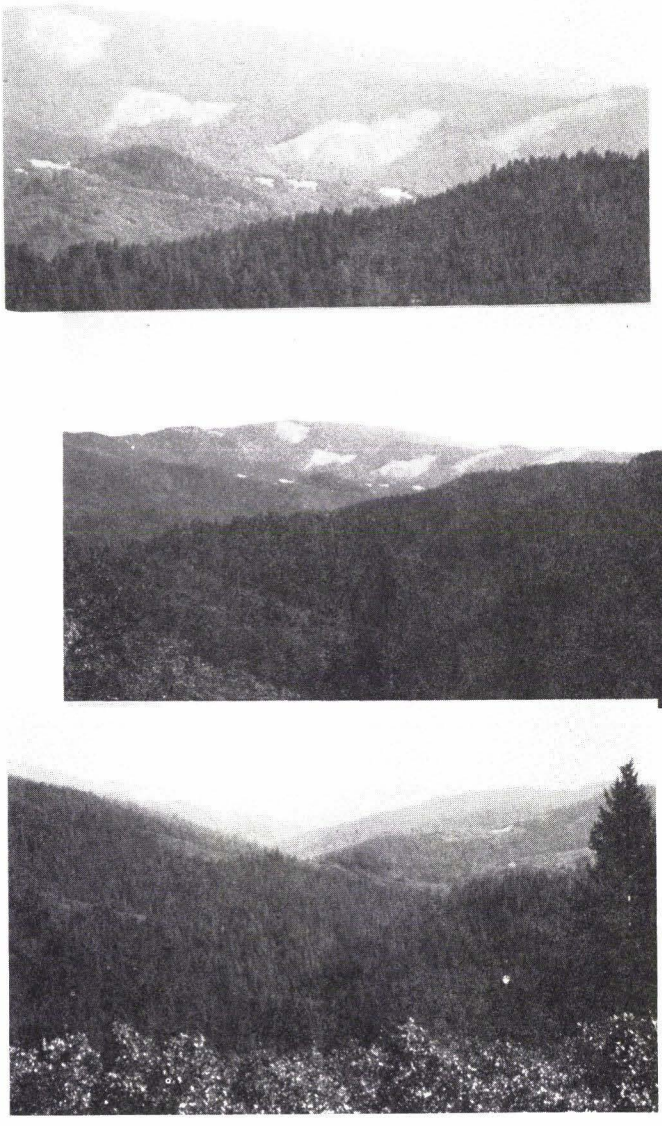
Reduction in contrast should meet existing Regional guides such as fully stocked stands in vegetative clearings within the first five years.

MAXIMUM MODIFICATION

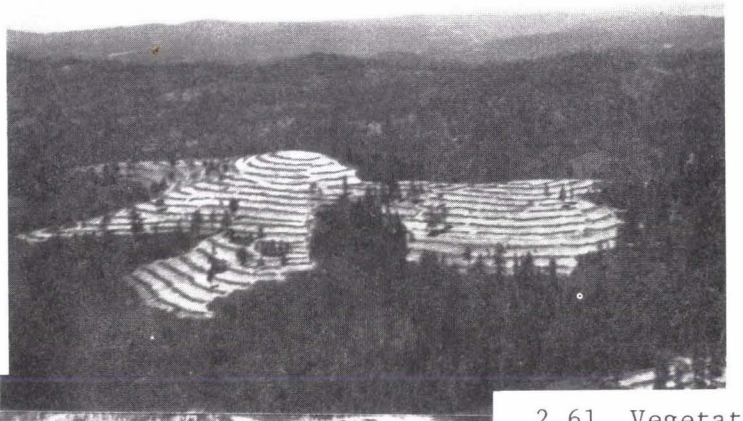
2.6 Maximum Modification

Management activities may completely subordinate the original landscape character. The amount of modification will often exceed 25% of the total seen area. When viewed as foreground or middleground, the management activity may be totally dominant and may not appear to completely borrow from naturally established dominance factors. However, when viewed as background, the visual characteristics of the management activity must be those of natural occurrences within the character type.

Establishment of visual linkages between the management activity and the characteristic landscape is needed to reduce visible impacts. The activities must borrow from naturally established dominance qualities at such a scale that its visual characteristics are those of natural occurrences within the character type.



The same area is shown at different distances to indicate how maximum modifications may blend in at background distances.



2.61 Vegetative Clearings

As an example: lines, shapes and patterns of vegetative clearings should generally be irregular and related to natural vegetation patterns and landforms.

2.62 Duration of Visible Impacts

Actions to reduce contrast should be undertaken within five years.

UNACCEPTABLE MODIFICATION

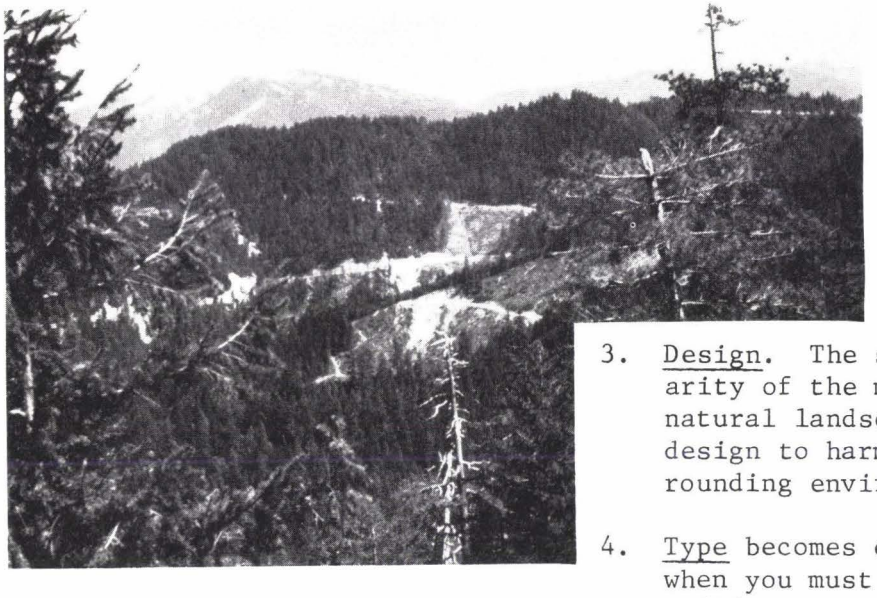
2.7 Unacceptable Modification

Unacceptable modification classification is also a standard; however, it is one that sets an example of excessive modification or what not to do to any landscape regardless of the distance from which the management activity may be observed.

The four key factors that determine the unacceptability of the management activity are:

1. Size or amount which when done to excess, quickly changes the form, line, color and texture of the characteristic landscape, beyond acceptable limits.

2. Location is a very important factor because there is really no place on the landscape that excessive modification can be tolerated.



3. Design. The size, shape, and similarity of the modification to the natural landscape character be by design to harmonize with the surrounding environment.

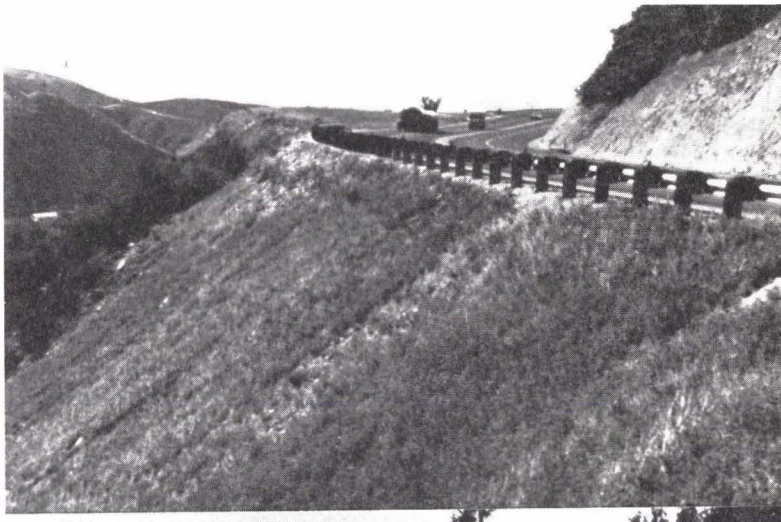
4. Type becomes extremely important when you must consider the type of modification activity that is imposed upon the landscape. Type will determine if only vegetation is modified or if landforms and vegetation will be modified and to what relative degree.

These four factors are most important in determining the unacceptability of the modification.

REHABILITATION

2.8 Rehabilitation

Landscape rehabilitation is a short term management alternative used to restore landscapes with undesirable visual impacts to a desired visual quality. It may not always be possible to achieve the prescribed visual quality standard with rehabilitation, but it should provide a more desirable landscape visually, until the quality standard can be reached.



Rehabilitation may be achieved through modification, concealment, or removal of obtrusive elements. Such rehabilitation might include:

Modification of vegetative alterations to eliminate obtrusive edges, shapes, patterns, colors, etc.

Modification of terrain alterations to blend better with natural slopes.

Modification, concealment, or removal of structures containing obtrusive colors or light reflections.

Revegetation of cut and fill slopes.

Modification, concealment, or removal of slash, root wads, debris piles.

Rehabilitation is normally required in the case of discordant landscapes--those which definitely lack unity. The following discussion of visual unity further defines discordant landscapes.

SECTION 3

VISUAL SENSITIVITY

3.1 Three Sensitivity Levels

3.2 Classification of
"User Sensitivity" Levels

3.3 Classification of
"Visual Perception"
Sensitivity Levels

3.1 Sensitivity Levels

Sensitivity levels provide a measure of a Forest's aesthetic importance to the concerned user. These people are generally either traveling through the forest or permanently or temporarily occupying a use area.

Sensitivity levels include classification of:

3.11 User Sensitivity Levels

3.111 Major and minor travel routes and use areas.

3.112 Type of users of travel routes and use areas.

User sensitivity levels are divided into three levels and apply to all travel routes, use areas, and water bodies. The three categories are:

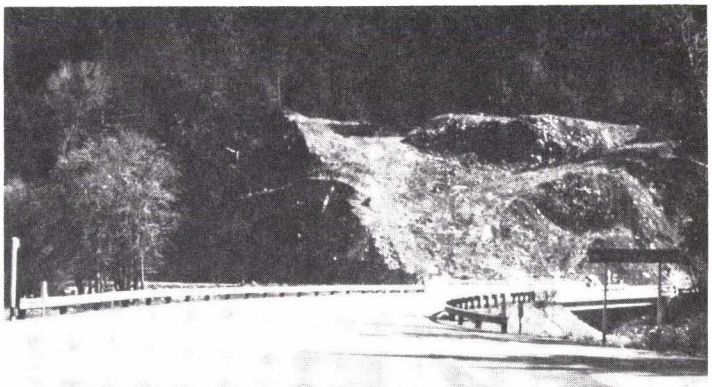
Level 1: High sensitivity
Level 2: Moderate sensitivity
Level 3: Low sensitivity

3.12 Visual Perception Sensitivity Levels

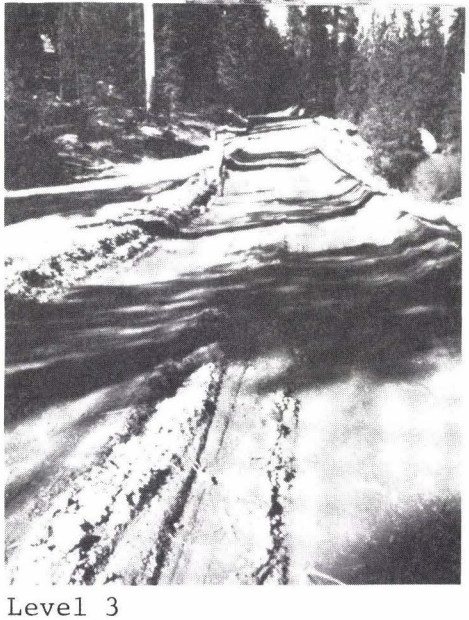
3.121 Seen areas

3.122 Distance zones

Level 1



Level 2



Level 3

3.2 Classification of "User Sensitivity" Levels

Two steps are involved in establishing "User Sensitivity" levels. The first is a categorization of all travel routes and use areas as to their being major, intermediate or minor within the Forest or District.

The second step involves determination of the long range function of travel routes, use areas, or water bodies in serving forest users having a major interest in scenic quality.

Serving those users may be considered:

1) a primary function when recreation use constitutes at least 75% of present or projected use; 2) a secondary function when recreation use constitutes at least 25% of the present or projected use; 3) a minor function when recreation use constitutes less than 25% of the present or projected use; and 4) areas not seen from land travel routes or use areas. The chart below illustrates how these two steps combine to produce the "user sensitivity" level classification.

3.21 USER SENSITIVITY CLASSIFICATION

		Long Range Function and Use Level			
		Primary	Secondary	Tertiary	Quaternary
		75% + of users are concerned with scenic resource	25 - 75% of users are concerned with scenic resource	Less than 35% users are concerned with scenic resource	Areas not see from land or water travel routes or use areas
Travel Routes					
Minor	0-50 ADT	Level 1	Level 2	Level 3	Level 3
Intermediate	50-400 ADT	Level 1	Level 1	Level 2	Level 3
Major	400+ ADT	Level 1	Level 1	Level 2	Level 3

ADT - Average Daily Traffic in Both Directions

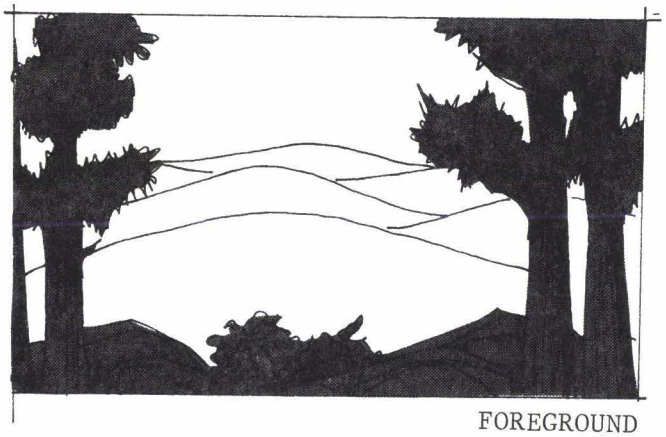
Use Areas				
Minor - less than 10 occ. sites	Level 1	Level 2	Level 3	Level 3
Intermediate - 10-100 occ. sites	Level 1	Level 1	Level 2	Level 3
Major - 100+ occ. sites	Level 1	Level 1	Level 2	Level 3

Note: When both travel route and use areas apply to the same area, the most sensitive will override the less sensitive classification.

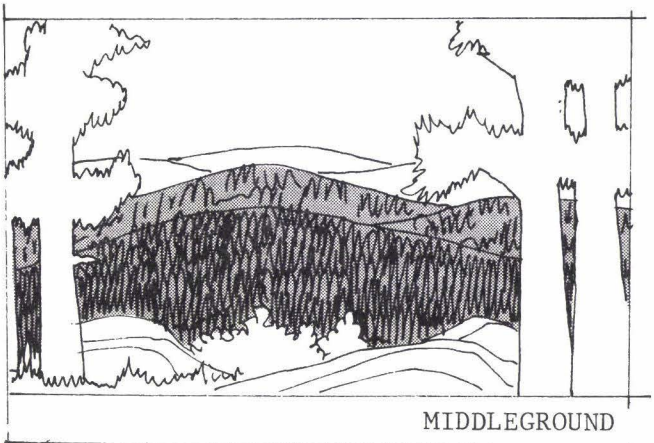
3.3 Classification of "Visual Perception Sensitivity" Level

Two steps are involved in establishing "Visual Perception Sensitivity" levels. The first is determination of "Seen Areas."

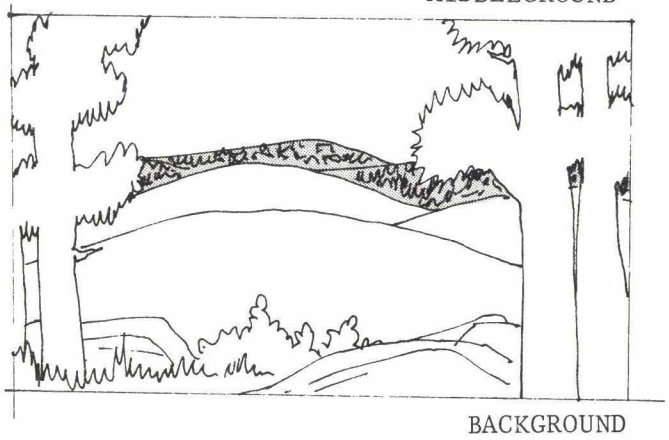
Seen areas should be based primarily on landform screening. This provides data on the "worst possible" situation; that is, it delineates the greatest possible acreages of seen areas, assuming that the vegetative mantle is subject to change by man or by natural causes.



FOREGROUND



MIDDLEGROUND



BACKGROUND

Although seen areas can be determined by manual methods, computer mapping with "View it," "Review" or similar computer programs (after topographic digitization) is recommended for speed and accuracy. By-products of such computer mapping are slope maps, aspect maps and angle of view maps which have value in selection of project alternatives.

The second step in the identification of distance zones within seen areas.

3.31 Foreground

The limit of this zone is based upon distances which details can be perceived. Normally in foreground views, the individual boughs of trees form texture. It will usually be limited to areas within 1/4 to 1/2 mile of the observer, but must be determined on a case by case basis as should any distance zoning.

3.32 Middleground

This zone extends from foreground zone to 3 to 5 miles from the observer. Texture normally is characterized by the forms of trees.

3.33 Background

This zone extends from middleground to infinity. Texture is formed by groups or patterns of trees; individual tree forms are usually not distinguishable.

SECTION 4

VARIETY CLASSES

4.1 Landscape Character Types in the California Region

4.2 Variety Classes

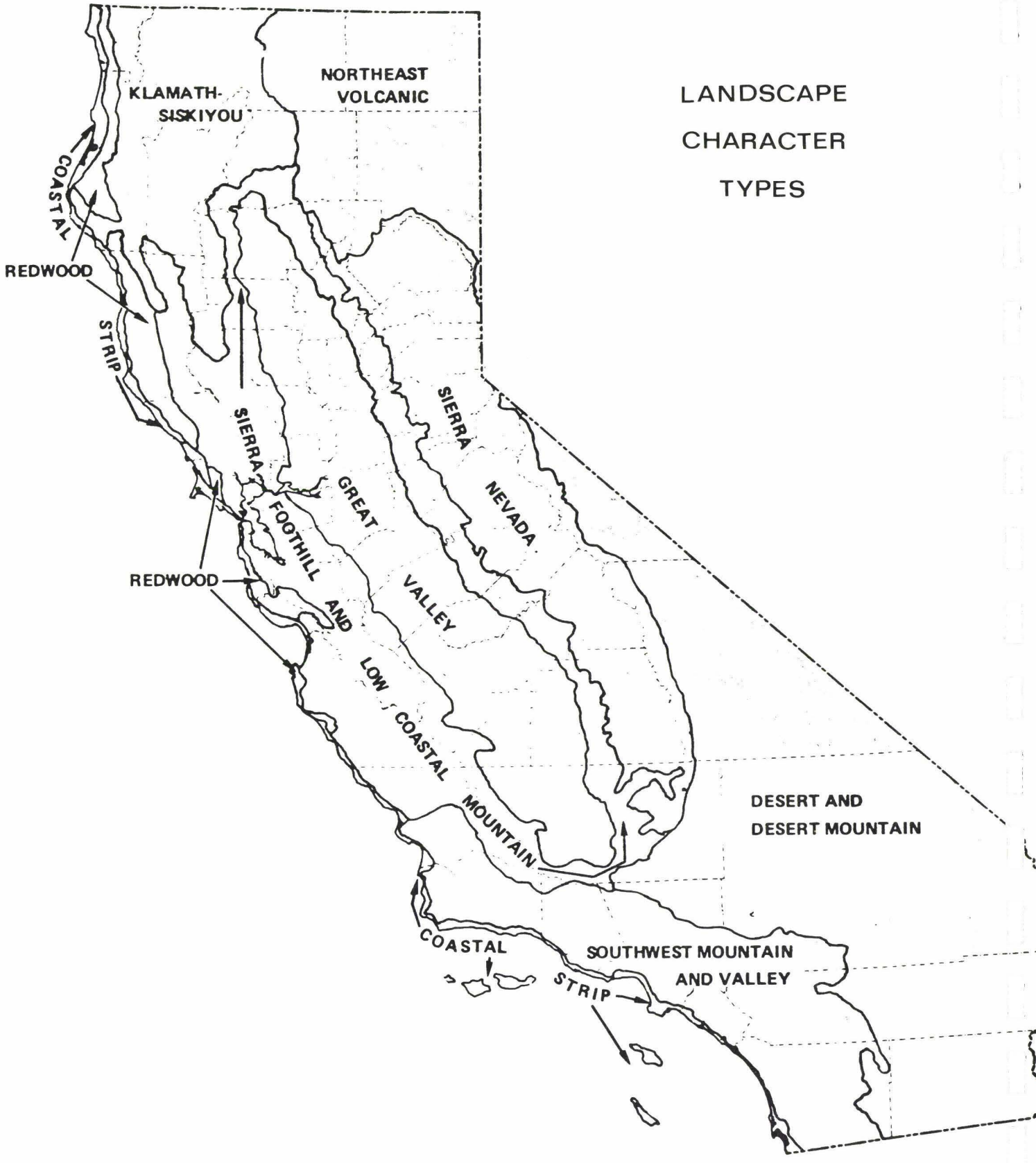
4.3 Classification Premises and Procedures

4.4 Class A landscapes

4.5 Class B Landscapes

4.6 Class C Landscapes

4.1 Landscape Character Types in the California Region



4.2 Variety Classes

The quality of natural landscape character is divided into three classes:

Class A: Distinctive high quality landscapes (sometimes unique)

Class B: Quality landscapes

Class C: Low quality or monotonous landscapes

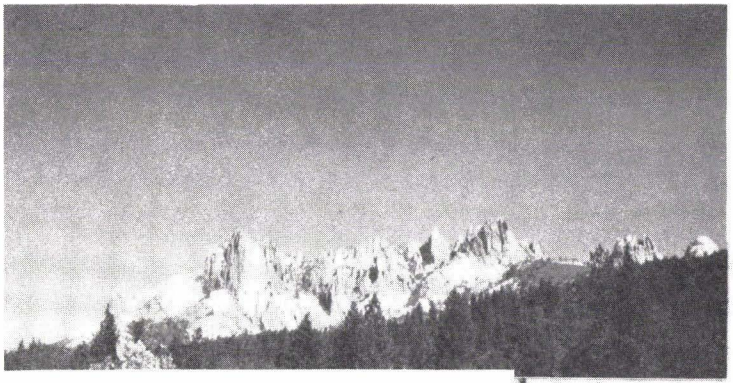
4.3 Classification Premises and Procedures

Generally as the degree of landscape variety or uniqueness increases, the attractiveness and quality of natural landscape character increases.

Landscape character types are geographic regions of landscapes which have common distinguishing characteristics. The character type is the frame of reference fro classifying the quality of individual features and areas located within the character type. Individual features such as landforms, waterforms, rock forms, vegetation forms, and combinations thereof are compared with those commonly found in the character type to determine their overall uniqueness and class rating.

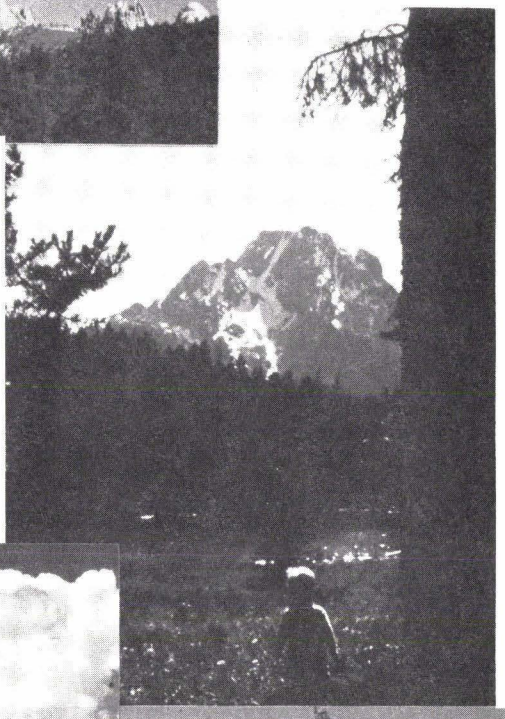
Each feature and area should also be examined within the context of the national frame of reference. Those areas or features which seem to have national recognition for their scenic value should automatically be rated Class A landscapes.

VARIETY CLASS A

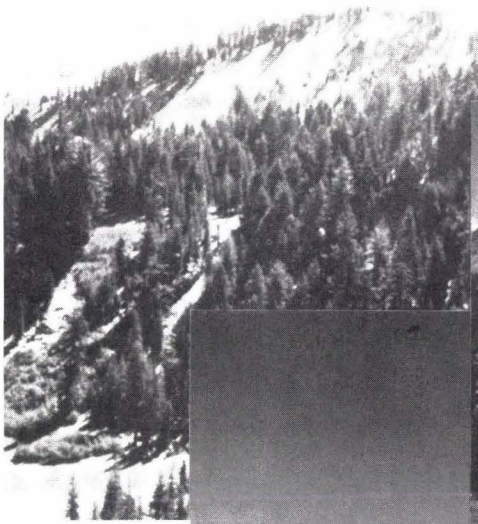


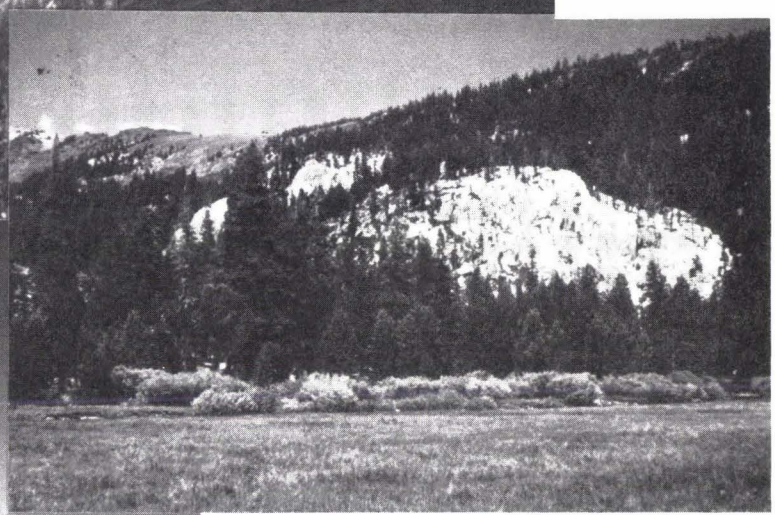
4.4 Class A

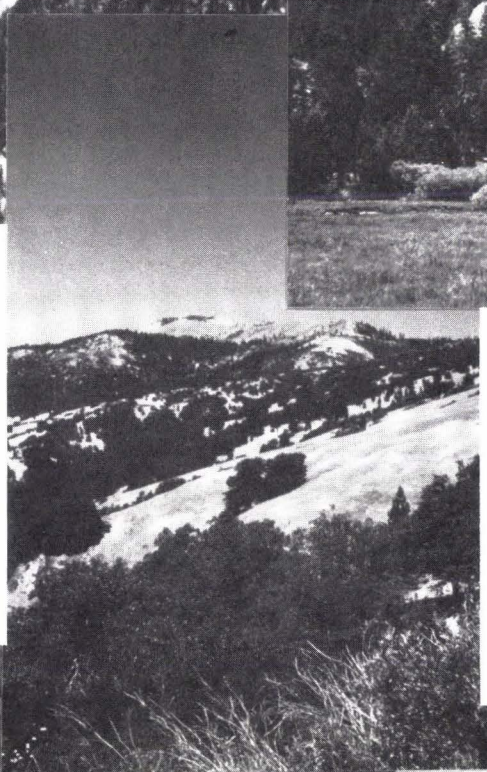
Class A landscapes contain outstanding feature attractions and distinctive variety in form, line, color and texture or combinations thereof. Class A landscapes are often the subject of scenic photographs by forest visitors. Some examples of class A landscapes within the California Region include:



VARIETY CLASS B



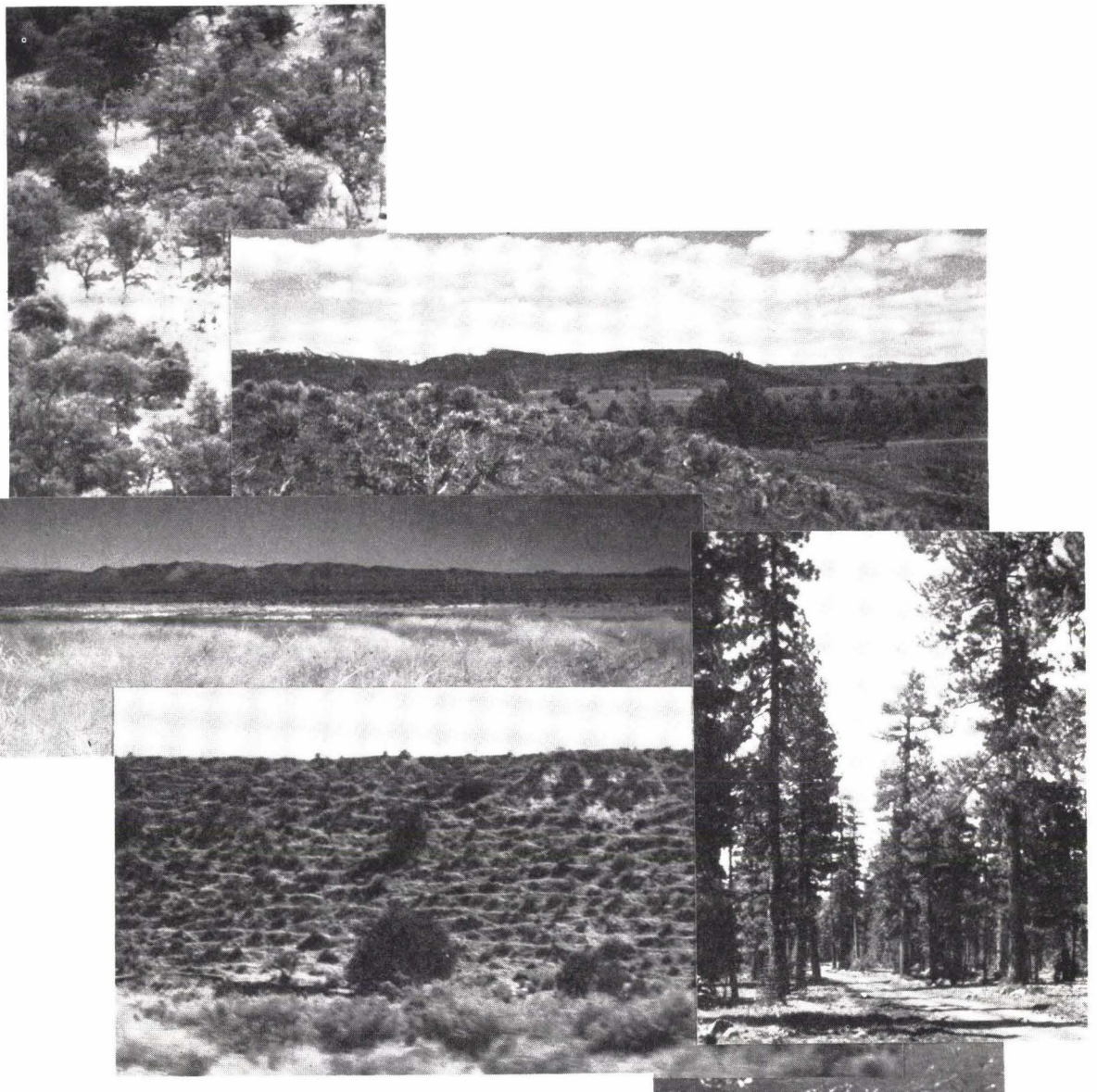




4.5 Class B

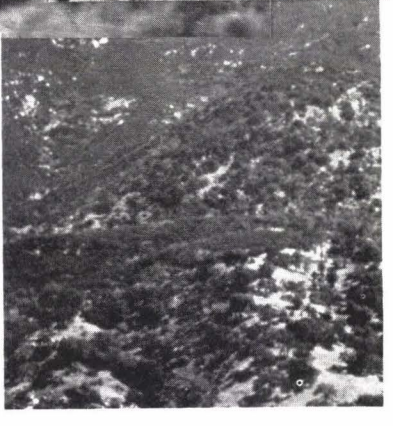
Class B landscapes contain variety in form, line, color, and texture or combinations thereof which are generally common to the character type. Major dominant features are definitely absent. Class B landscapes are pleasant to view but not often the subject of scenic photographs by forest visitors.

VARIETY CLASS C



4.6 Class C

Class C landscapes include all those areas not included in class A or B, and are generally characterized by little or no variety in form, line, color, and texture or combinations thereof. Class C landscapes are monotonous and would not normally be photographed by anyone other than educators, scientists, or land management personnel.



SECTION 5

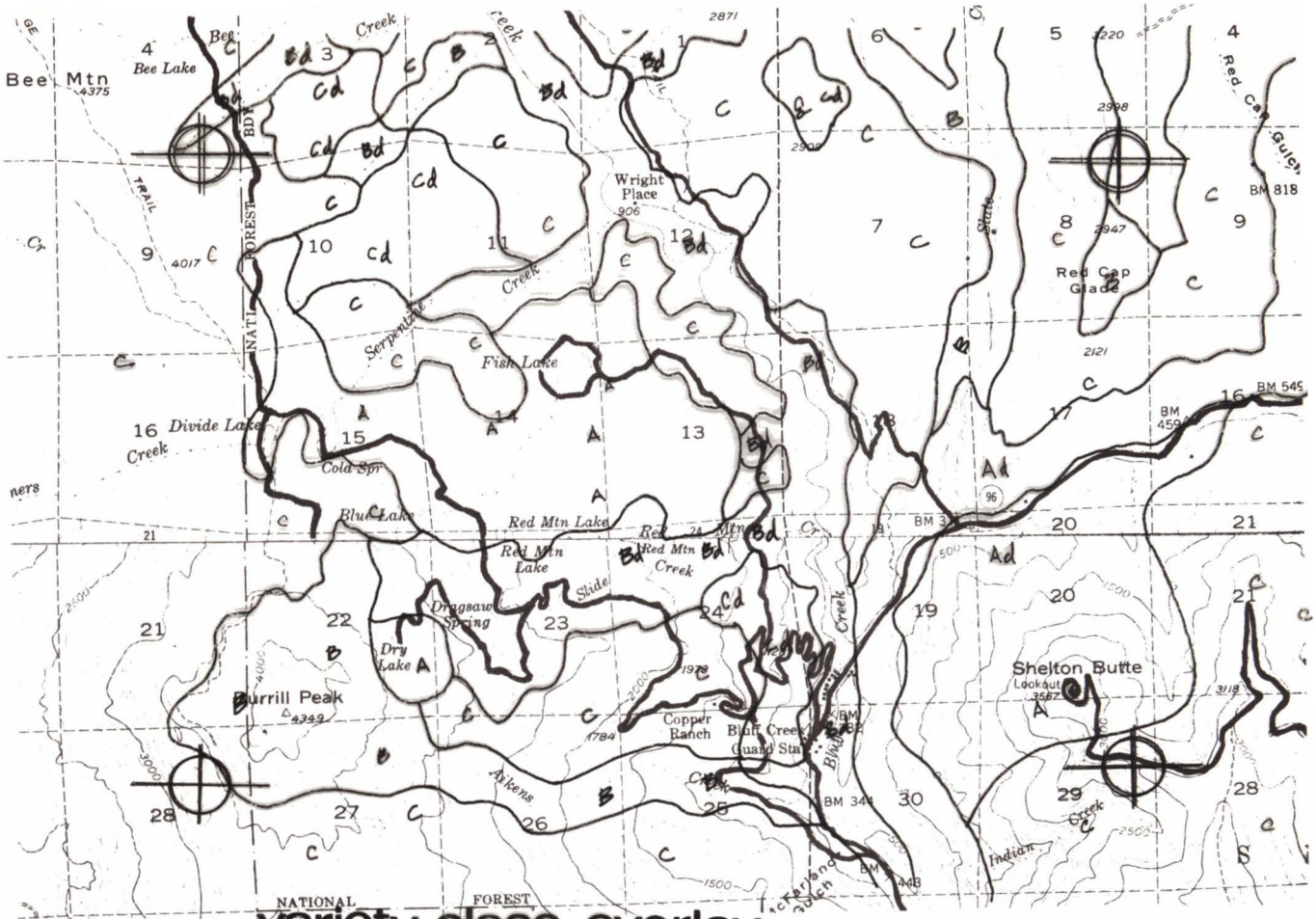
ESTABLISHMENT OF VISUAL QUALITY STANDARDS FROM SENSITIVITY LEVELS & VARIETY CLASSES

5.1 Establishment of Visual Standards

Quality standards other than Preservation are the product of combining variety classes and sensitivity levels. Preservation applies primarily to formally Classified Special Areas (Wilderness, botanical, geological areas, etc.) and this quality standard is established through legislation and high level administrative decision. To assist in establishing quality standards, the following recommended procedure is provided.

5.11 Assign Preservation quality standard to all appropriate existing and proposed (within 10 years) Special Classified Areas.

5.12 Use the previously prepared variety class categorization and sensitivity level classifications to determine the visual quality standards for land units with similar characteristics and sensitivities. This may be accomplished on a project area basis as an interim measure, but Forest-wide overlays should be the ultimate goal.



SYMBOLS AND DEFINITIONS

Visual Sensitivity Levels

User Sensitivity Levels

1	High
2	Moderate
3	Low (or not seen)

Variety Classes

A	High Quality
B	Quality
C	Low Quality

Perceptual Sensitivity Levels

Distance Zones

fg = Foreground

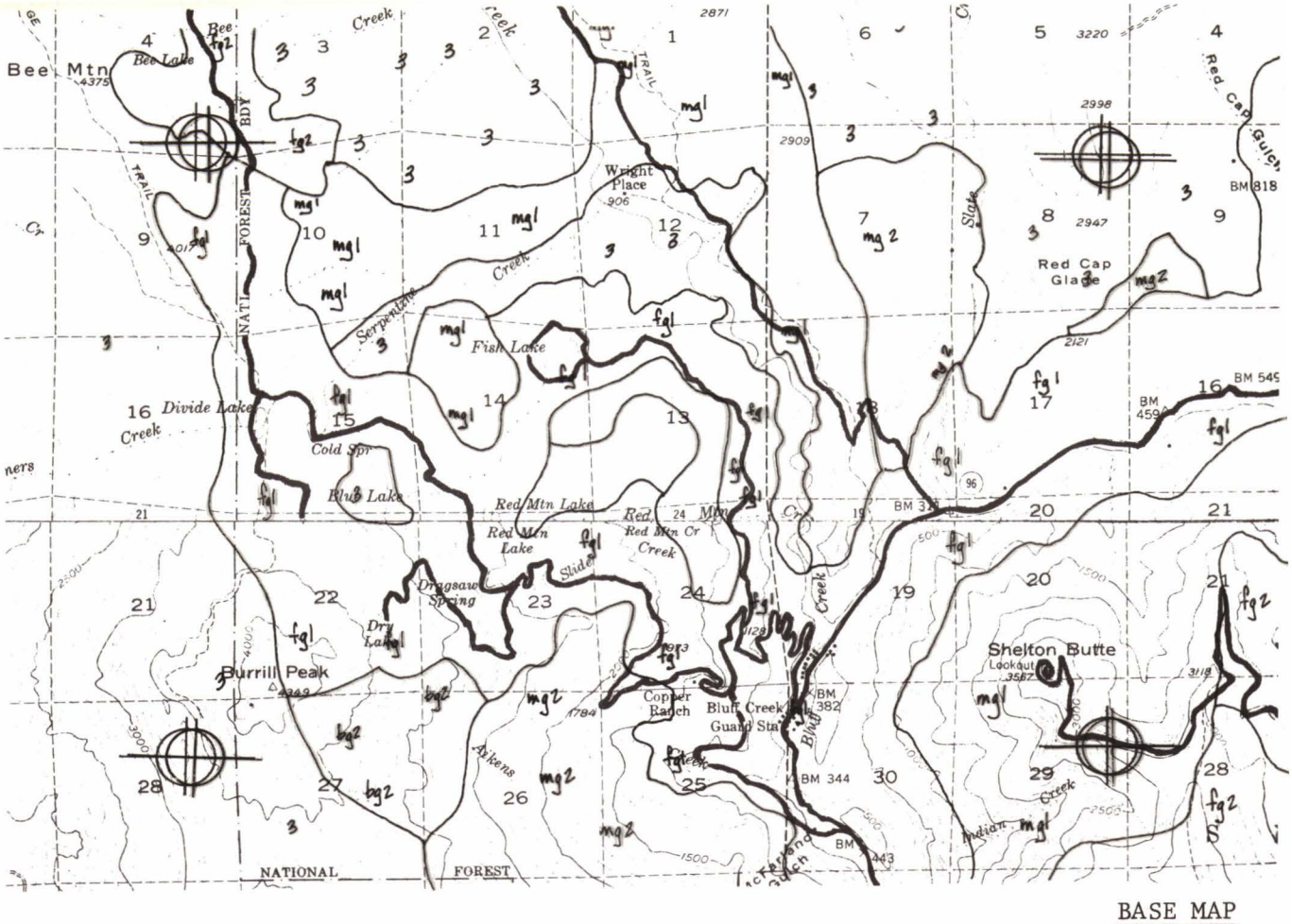
mg = Middleground

bg = Background

Blank = Not seen

Landscape Unity Class

d Discordant landscape (Require interim measure of rehabilitation)



BASE MAP

visual sensitivity overlay

SYMBOLS AND DEFINITIONS

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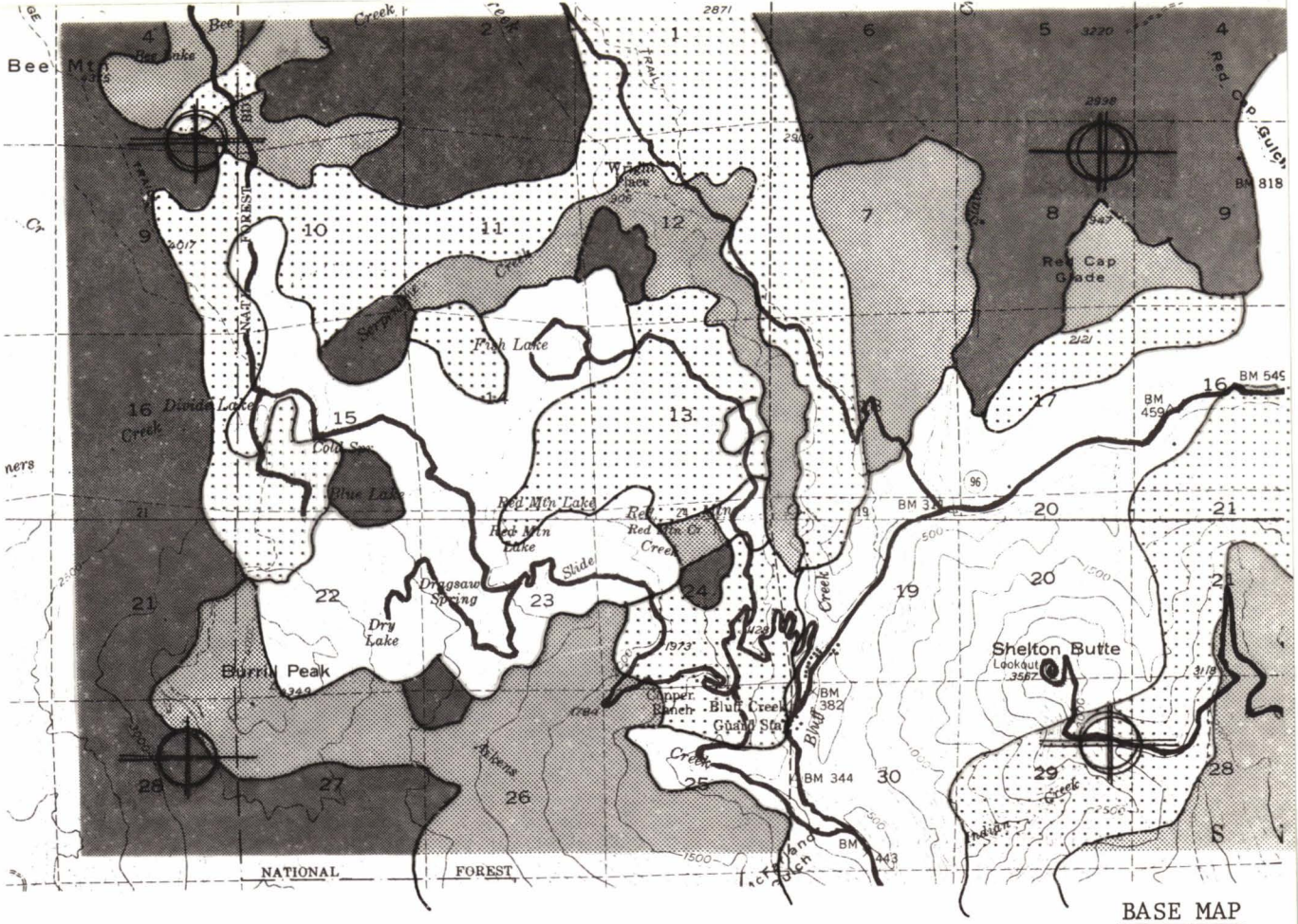


BASE MAP

visual quality standards

R
PR
M
MM

Visual Sensitivity Levels

User Sensitivity Levels

1 High

2 Moderate

3 Low (or not seen)

Perceptual Sensitivity Levels

Distance Zones

fg = Foreground

mg = Middleground

bg = Background

Blank = Not seen

SYMBOLS AND DEFINITIONS

Variety Classes

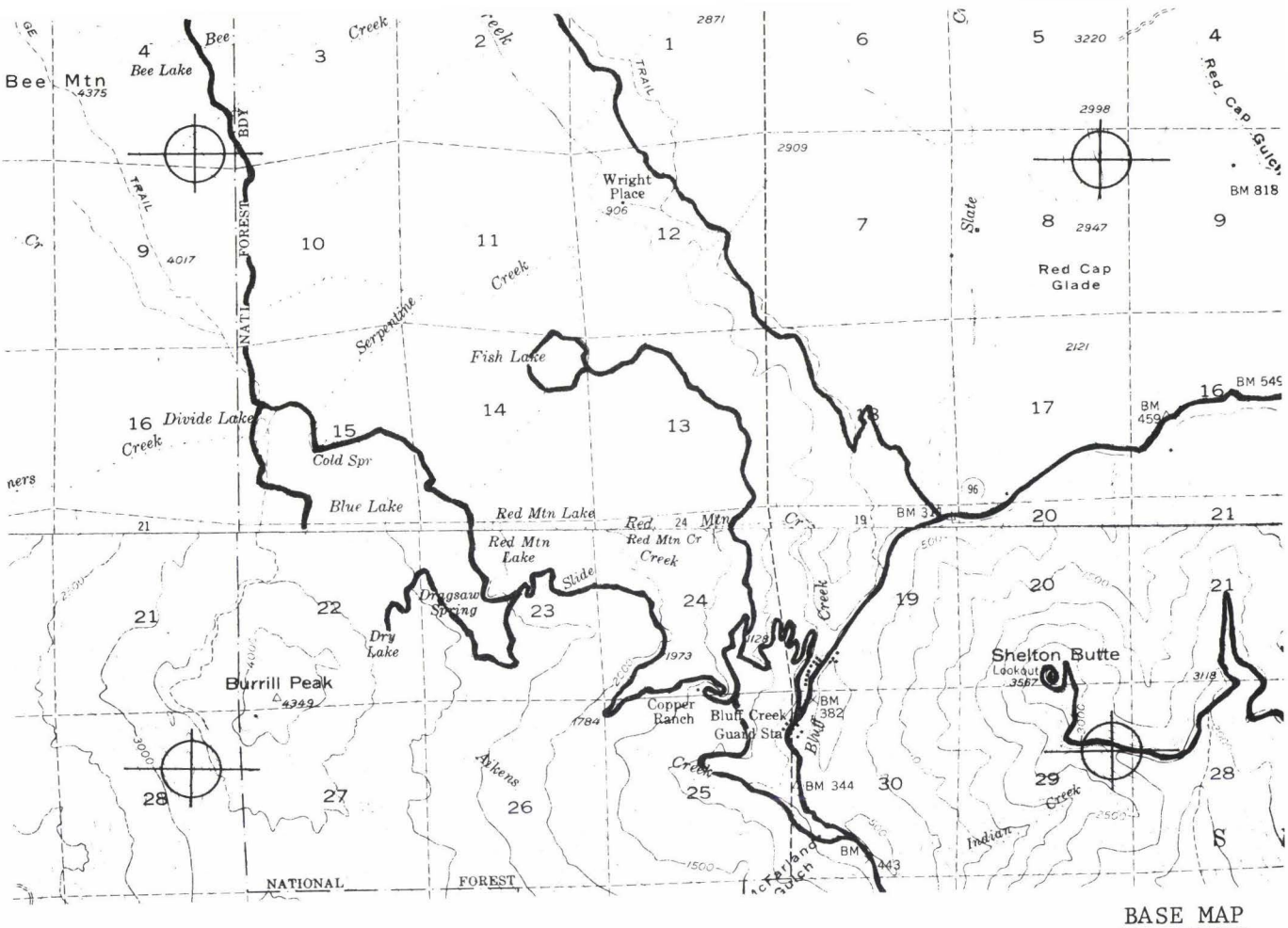
A High Quality

B Quality

C Low Quality

Landscape Unity Class

d Discordant landscape (Require interim measure of rehabilitation)



BASE MAP

SYMBOLS AND DEFINITIONS

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fg = Foreground

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Landscape Unity Class

d Discordant landscape (Require interim measure of rehabilitation)

5.13 Use the following chart to convert the combined variety classes and sensitivity levels to quality standards.

Variety Classes	fg 1	mg 1	bg 1	fg 2	mg 2	bg 2	3
Class A	R	R	R	PR	PR	PR	PR
Class B	R	PR	PR	PR	M	M	M * / MM
Class C	PR	PR	M	M	M	MM	MM

*If a 3B area is adjacent to a retention or partial retention visual quality standard, select the modification visual quality standard. If adjacent to modification or maximum modification standard areas, select maximum modification.

5.14 Refer to Chapter 2.0 for definitions of visual quality standards to apply to projects.

SECTION 6

VISUAL RESOURCE CAPABILITY

6.1 Visual Resource Capability Classes

6.2 Establishing Visual Resource Capability Classes

6.3 Mapping Visual Resource Capability Classes

6.1 Visual Resource Capability

Following the establishment of Visual Quality standards, the next step is to determine if a modification activity will meet those standards upon implementation. This can be partially accomplished by visual resource capability classifications which will provide guides as to the constraints brought about by physical sensitivities of the site or area.

In effect, this is another sensitivity level measure, but it relates to physical characteristics whereas the previous chapter on Visual Sensitivity dealt with social sensitivities (the user sensitivity and the perceptual sensitivity).

This measure of sensitivity referred to as Visual Resource Capability is not required in order to establish visual quality standards (although there may be some temptation to do so). It is required before decisions can be made on alternatives to meet predetermined visual quality standards.

Visual resource capability classes provide an overall indication of the relative capacity of various landscapes to withstand management activities without incurring significant visual impacts. The term "significant" is variable depending upon the established quality standard for each area. These classes also provide a measure of our management capabilities (economic, technological, manpower skills, etc.) to achieve the desired quality standard for any given area.

There are three classes of visual resource capability. They are:

High
Moderate
Low

6.11 Low

Landscapes have little or no capability to withstand management activities without incurring significant visual impacts. Resource conditions are frequently so critical and usually pose such serious problems that management activities often have a relatively high potential to cause major visual impacts, and management alternatives are narrowly limited. Achievement of most of the established quality standards is, therefore, often very difficult or impossible in these highly fragile landscapes where modification activities are planned.

6.12 Moderate

Landscapes have limited capability to withstand management activities without incurring significant visual impacts. Quality standards of retention and partial retention are often very difficult to achieve due to the magnitude of visual impacts which often occur in moderately fragile landscapes. Achievement of the quality standards of modification and maximum modification is, however, very often well within our management capabilities in these moderately fragile landscapes.

6.13 High

Landscapes have a relatively high capability to withstand management activities without incurring significant visual impacts. Resource conditions pose few, if any, serious problems for management. Visual impacts can usually by minimized. Achievement of any quality standard is usually well within our management capabilities in these durable landscapes.

Overall management potential to achieve the various visual quality standards under the visual resource capability classes is summarized in the table below.

Potential to Achieve Visual Quality Standards with Modification Activities

Quality Standard	Visual Resource Capability Class		
	Low	Moderate	High
Retention	Poor	Poor	Medium
Partial Retention	Poor	Poor	Medium
Modification	Poor	Medium	Good
Maximum Modification	Poor	Medium	Good

6.2 Establishing Visual Resource Capability

The overall amount or extent of visual impact resulting from management activities is directly related to certain physical characteristics of the land, or ecological elements. The establishment of visual resource capability classes is therefore based upon these same elements. These elements include, but are not limited to the following:

slope
landscape stability
soil productivity
vegetation type/density/height
vegetation pattern
aspect

6.21 Slope

The overall amount of visible terrain and vegetative modification resulting from management activities generally increases as the overall steepness of terrain increases, and vice versa.

6.22 Landscape Stability

The probability and extent of visual impacts is generally greatest in areas containing active or potentially active slides, whereas visual impacts can be insignificant in stable landscapes.

6.23 Soil Productivity

The extent and duration of visual impacts also generally increases as soil productivity decreases and vice versa.

6.24 Vegetation Type/Density/Height

Visual impacts generally decrease as the capability of on-site vegetation to screen out management activity increases.

6.25 Vegetation Pattern

The impact of management activities generally increases in landscapes containing homogeneous vegetation patterns, and decreases in landscapes containing heterogeneous patterns.

6.26 Aspect

The length of time required for scarred landscapes to recover is partially dependent on the aspect, whether in an exposed southwesterly or protected northeasterly location.

The key on the next page contains some general guides that will aid in the establishment of visual resource capability classes.

Visual Resource Capability Key

Ecological Element	Visual Resource Capability Class		
	Low	Moderate	High
Slope 0-25% 25-75% 75%+			● ● ●
Landscape Stability High potential and active slide areas Stable areas	●		●
Soil Productivity Low Moderate High	●	●	●
Vegetation Type/Density/Height Grassland Brushland Forest land Sparse Dense	●	● ●	●
Vegetation Pattern Homogeneous Heterogeneous		●	●
Aspect Southwest exposure 180° to 270° Northwest & southeast 90-180° & 270-360° Northeast exposure 0° to 90°	●	●	●

6.3 Mapping Visual Resource Capability Classes

The collection of data and the mapping of landscape fragility classes is normally the product of a forest multi-disciplinary team effort. Much of the data is gathered for reasons other than visual resource management and is available.

Each ecological element can be mapped on a separate overlay. Highly fragile features and areas can be indicated in black. Moderately fragile areas can be indicated in middle grey. Low fragility areas (the remainder) can be indicated as clear or white.

The individual maps can be overlaid on top of one another and a composite map can be prepared. The areas appearing in black on the composite represent the extent of highly fragile features and areas. Areas appearing in grey show the extent of moderately fragile landscape. Areas appearing in clear or white show the extent of low fragility landscape.

SECTION 7

COORDINATION WITH OTHER RESOURCES

Coordination with Other Resources

7.1 Quality Standards in this guide are purposely developed independently of other resource and management concerns to provide pure functional objectives for the visual resource. Formulation of management prescriptions will, however, require coordination of scenery management objectives with other resource goals.

7.11 Timber

One of the major purposes of this booklet is to provide a system by which the timber resource can be managed even in the most sensitive and unique areas. It is recognized that the desired quality standards will not always be attainable due to resource limitations, manpower skills limitations, timing, technological limitations, and/or economic limitations. Where the Quality Standard for an area cannot be met, the manager has at least three alternatives:

Alternative 1 - Lower the Quality Standard

Alternative 2 - Modify the management activity to meet the Quality Standard.

Alternative 3 - Defer the management activity until there is a high probability of meeting the Quality Standard.

Alternative 1 will seldom be an acceptable course of action.

7.12 Recreation

Both planning and site location and design for private and public sectors should consider these standards and guidelines as part of the problem-solving process.

7.13 Fire Control

Presuppression activity guidelines such as slash control may be more restrictive than visual standards. In such cases, they should prevail.

Design of activities such as fuelbreaks, fire breaks, helispots, etc., should follow guidelines and standards in this supplement as well as meeting functional needs.

7.14 Lands

Land exchange and purchase should be considered reasonable and logical tools to manage the visual resource at desired quality standards.

7.15 Water Quality

Stream-side management guides should prevail over visual quality standards in cases where they are more restrictive.

7.16 Range & Wildlife

Specific wildlife and range objectives for area of concern should be examined carefully. Most often these objectives are compatible and can be accommodated well within desired visual quality standards.

7.17 Soils

Lack of attention to soil erosion hazard ratings and natural stability of landforms can cause a management activity to violate other quality standards while otherwise meeting visual quality standards.

7.18 Mining

Location and design of mining operations should follow guidelines and standards set forth in this supplement.

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Visual Resource Management Guides: Visual Quality Standard Determination and Application

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